Deposition of Inhibiting Anions on Aluminum

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Aluminum and its alloys are widely used industrial materials due to their desirable mechanical properties. The high corrosion resistance of aluminum is due to a protective oxide, which always covers the aluminum surface. Ions present in aqueous solution can become incorporated into the passive film, thus altering its composition. The interaction of these ions with the film can either form a more dense layer that provides better protection [1,2], or it can locally break down the passive film, allowing the attack of aggressive ions that can initiate pitting or crevice corrosion [3,4].

In this study, the accumulation of inhibiting anions on the surface of Al 1100 will be studied by *in sit*u and *ex situ* techniques to gain a better understanding of the formation of protective films on aluminum. The potential and pH dependence of said deposition will be explored.

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References

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